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Maximize the Contribution of High School Career/Technical Studies to:

Improve Graduation Rates and Readiness for Work, Advanced Training and College

Kentucky Governor's Task Force Commission on CTE

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The Next Generation of School Accountability:

*A Blueprint for Raising High School
Achievement and Graduation Rates
in SREB States*

SREB's Point of View Regarding High School Career/Technical Studies

Quality C/T Studies are:

- Essential for graduating more students and graduating them ready for work, advanced training *and* college.
- Best when joined with a college-ready academic core in a way that integrates heads-on and hands-on learning to allow more students to succeed in a rigorous program of study.

SREB's Point of View Regarding High School Career/Technical Studies

Quality C/T Studies are:

- Best when they are intellectually demanding and when academic content is purposefully embedded into the curriculum.
- Most effective when designed to prepare students for a double purpose — work and further study — and when held accountable for results.

A Few Kentucky Facts

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- **Statewide Promotion Power: 74%**
- **89 high schools have no more than 70% of their ninth-graders making it to the senior year.**
- **30 high schools have no more than 60% reaching grade 12.**
- **Kentucky's Averaged Freshman Graduation Rate in 2007-2008: 74.4%**
- **2007 Senior Graduation Rate 97%**

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Six conditions that make it possible for career/technical studies to improve students' readiness for work, advanced training and college

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Ready for Tomorrow:

*Six Proven Ideas to Graduate and
Prepare More Students for College and
21st-Century Careers*



HSTW
TCTW

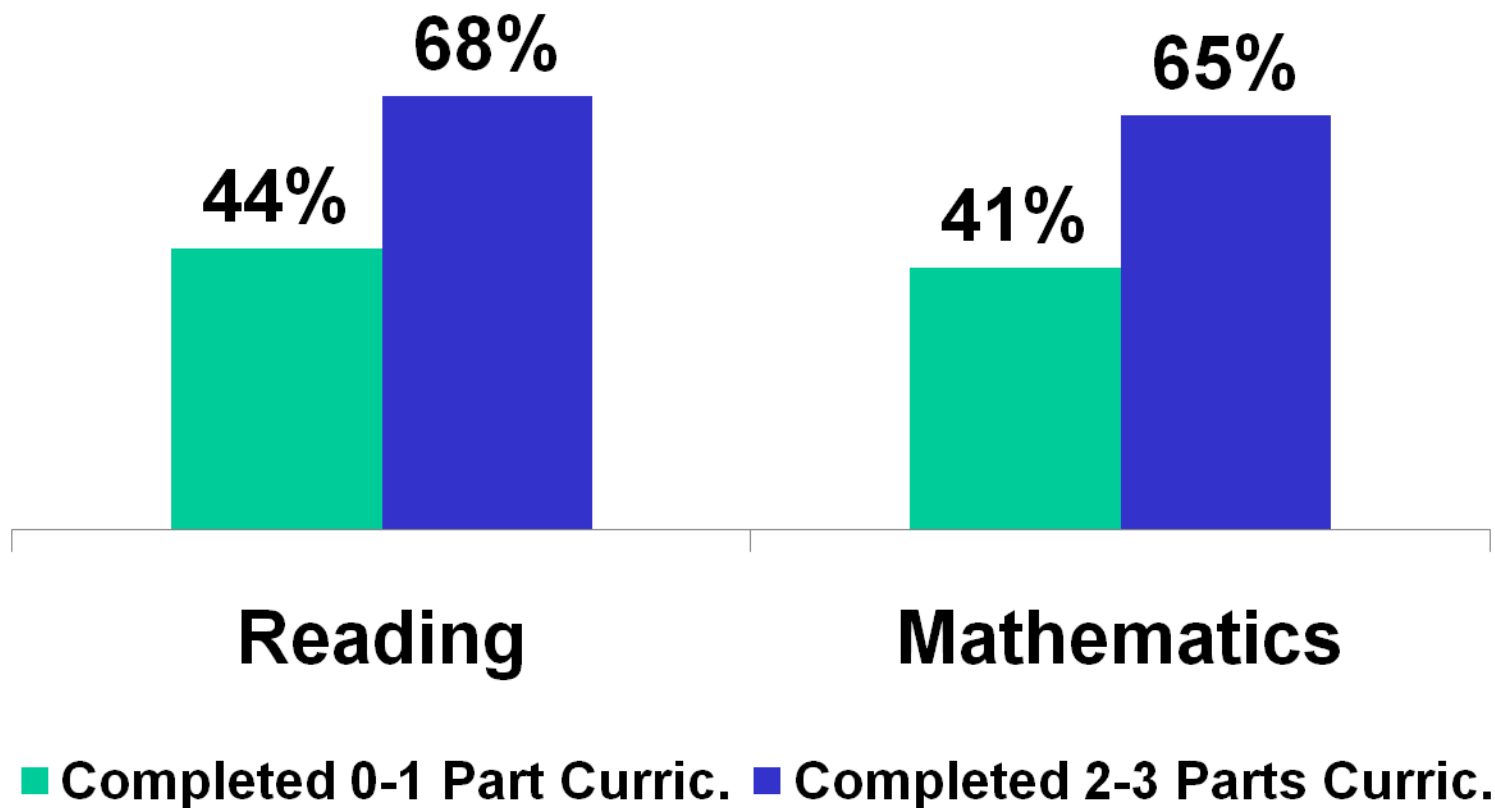
Condition 1. Provide students in every program of study with a college-ready academic core curriculum.

Why a Rigorous Academic Core?

More Students Meet Readiness Goals

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Source: 2008 *HSTW* Assessment

Condition 2: High-quality CT programs of study embed academic standards for reading, writing, mathematics and science into the curriculum and engage students in applying those skills to complete authentic assignments/projects.

(Contextual Learning)

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Preparation for Tomorrow:
**Joining a College-Ready
Academic Core with
Intellectually Demanding
Career/Technical Courses**

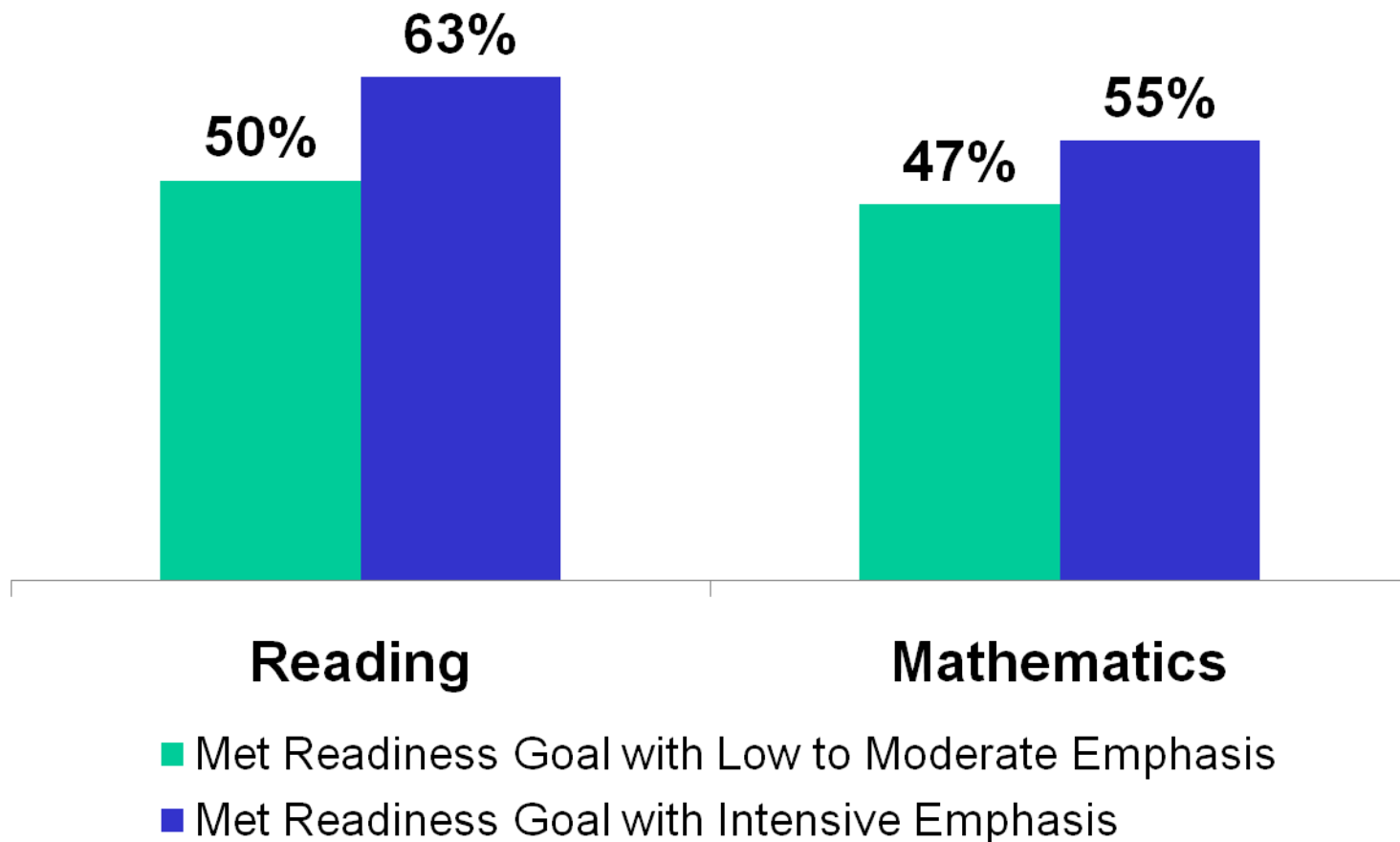
**West Virginia Career Area:
Energy, Power and Engineered Systems**

2010 Southern Regional Education Board Meeting
June 27-29, 2010
The Greenbrier
White Sulphur Springs, West Virginia

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Embedded Academics into CT Improves Achievement

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Source: 2008 *HSTW* Assessment

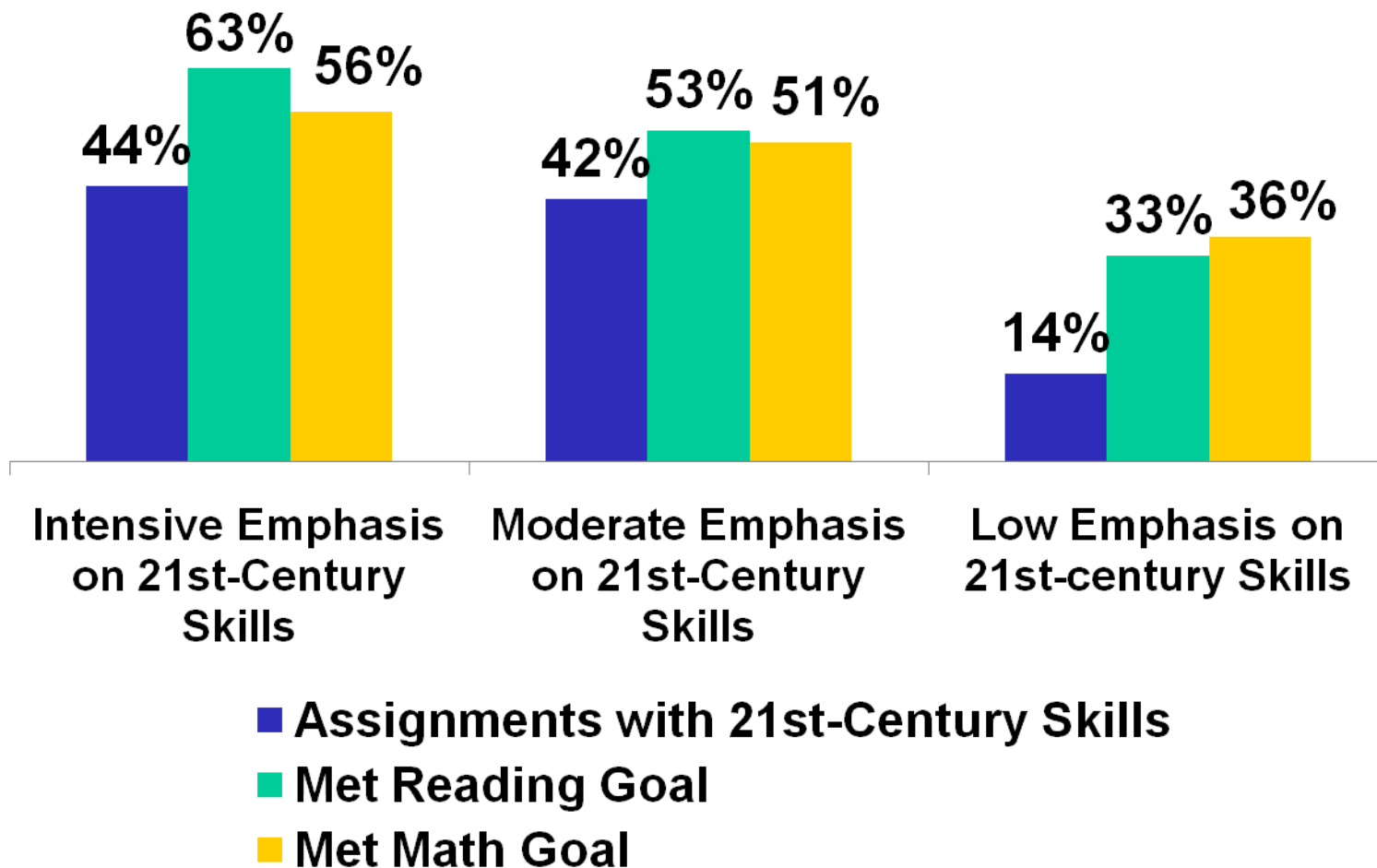
Condition 3: High-quality CT programs of study emphasize 21st-century skills/intellectually demanding assignments.

- Trouble-shooting and problem-solving skills
- Use of research skills to collect and organize information into a work plan
- Use of mathematics to support decision-making and planning
- Use of writing to aid learning and to complete tasks
- Communication and interaction with adults outside the school
- A setting where students experiment, invent, design and construct

(Contextual Learning)

21st-Century Skills Add Value to Achievement

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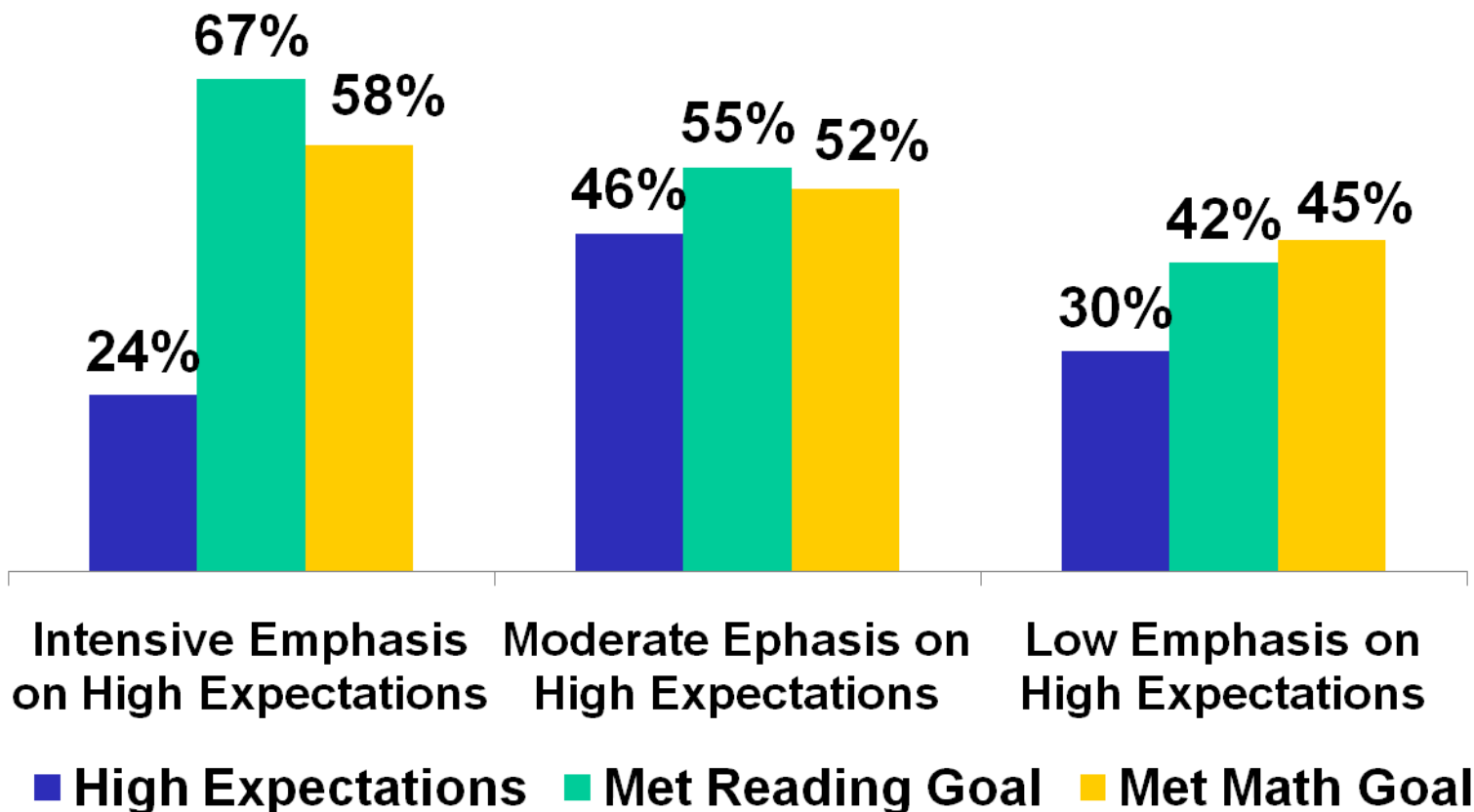
Source: 2008 *HSTW* Assessment

Condition 4. Expect every student to strive until they meet standards in all academic and CT classrooms.

- Teachers are clear about quality of work expected.
- Have students redo work until standards are met.
- Failure is not an option.

High Expectations Add Value to Achievement

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Source: 2008 HSTW Assessment

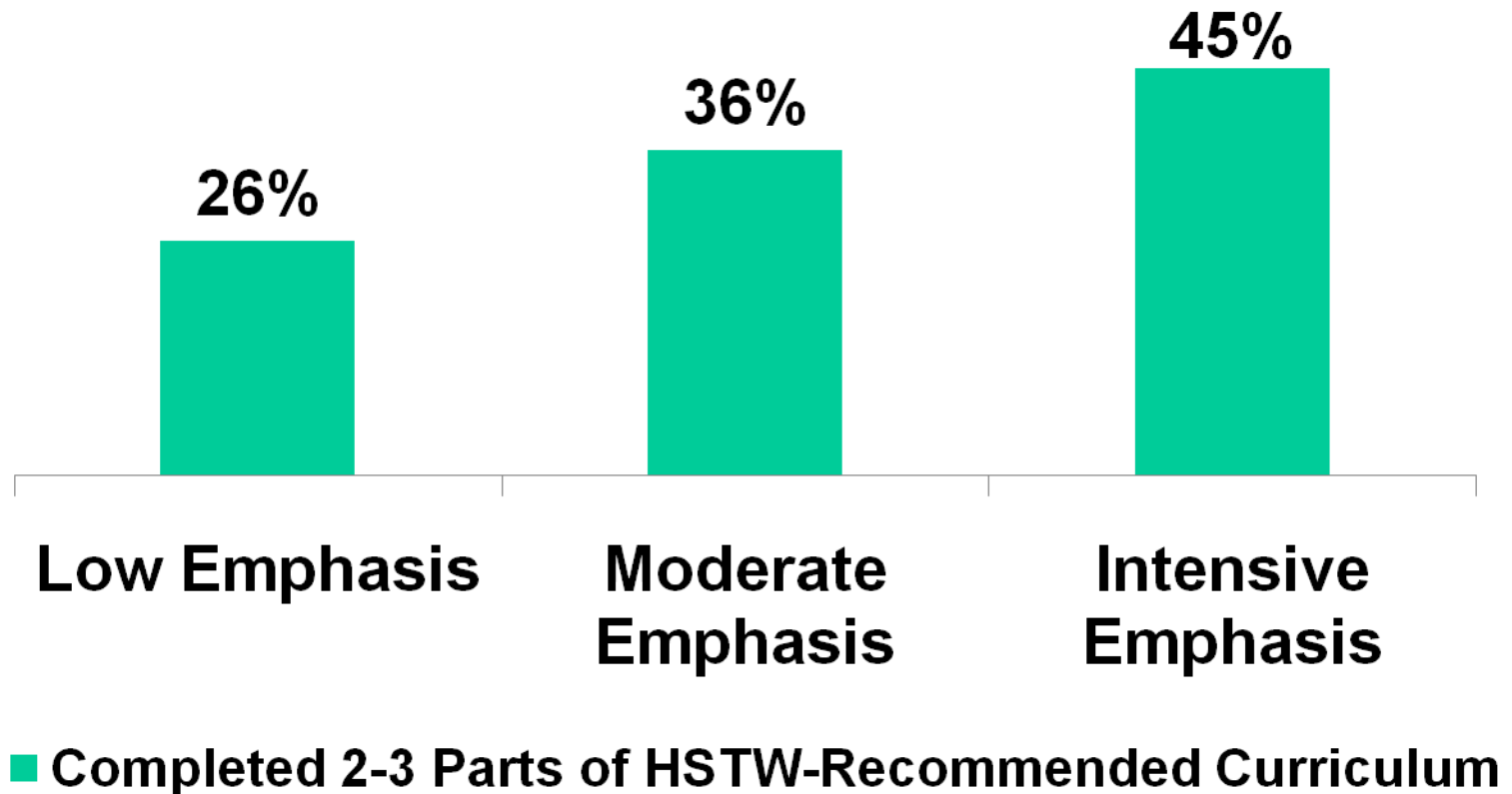
Condition 5: Provide students the extra help they need to meet college- and career-readiness standards.

Condition 6: Connect students with an adult who serves as their mentor/adviser and sees that students set postsecondary goals, develop a plan to achieve those goals, and receive the assistance and support needed to succeed.

Intensive Emphasis on Guidance Motivates Students to Take the Right Courses

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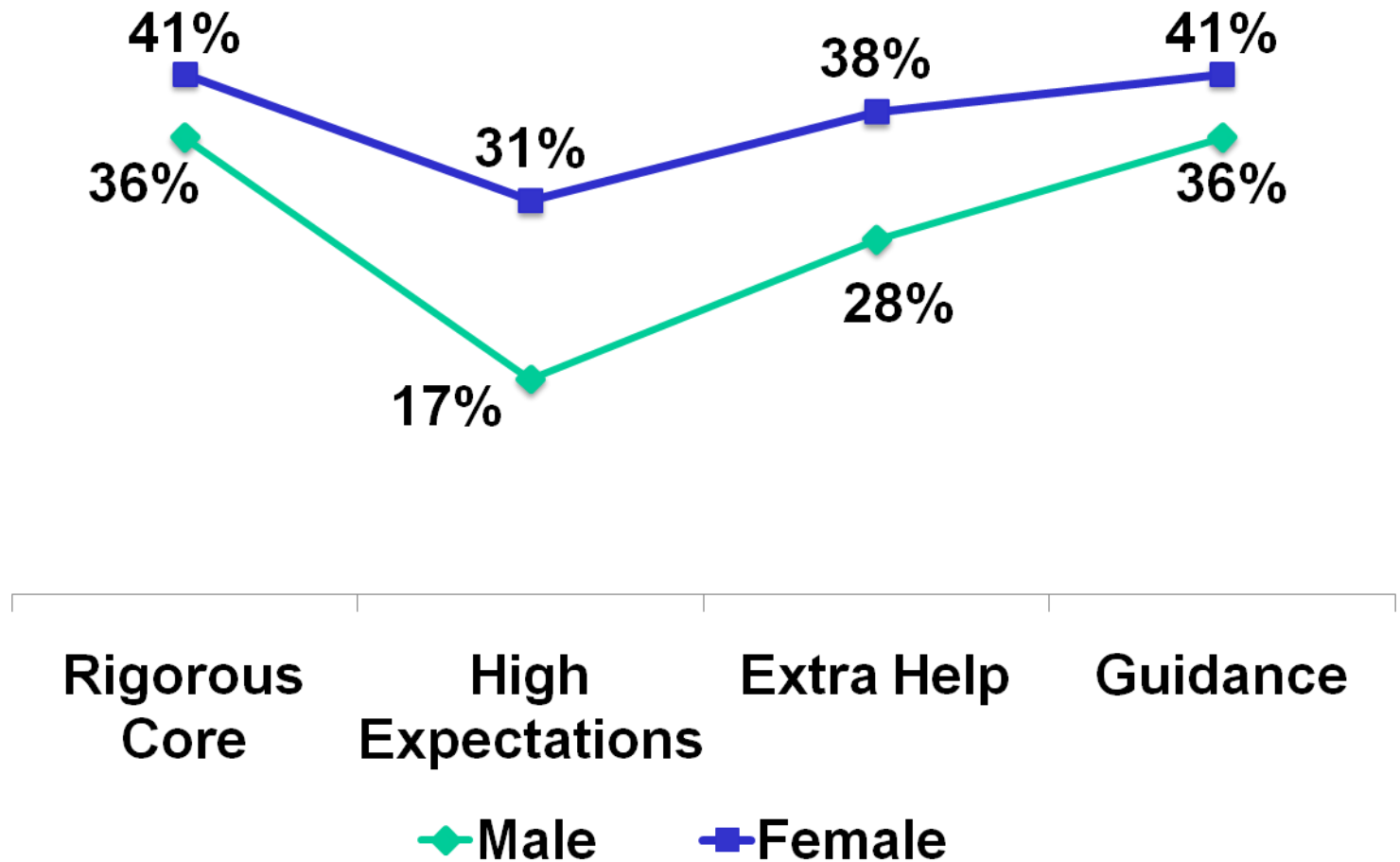


Source: 2008 *HSTW* Assessment

Which students are more likely to experience certain conditions?

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Gender



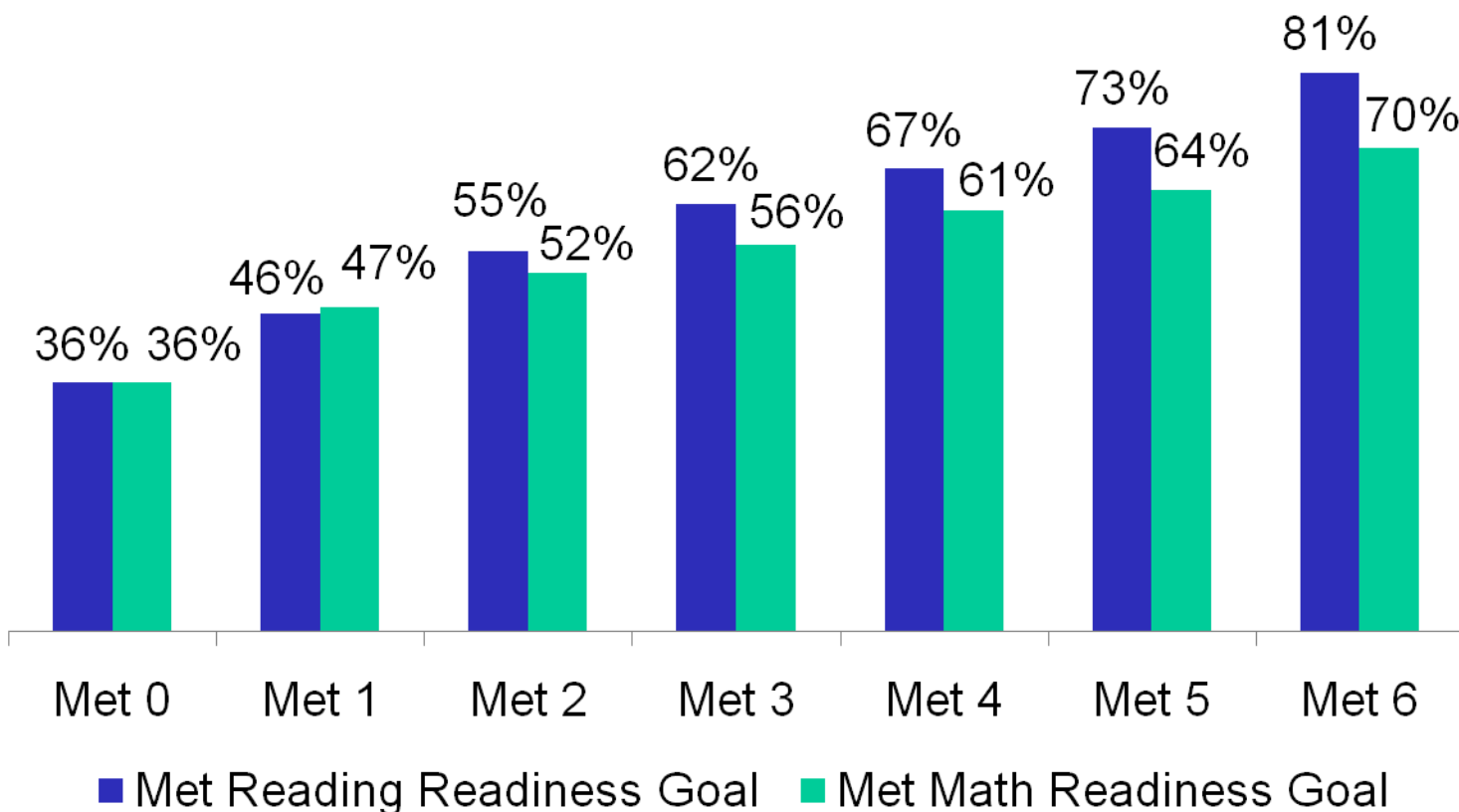
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Source: 2008 *HSTW* Assessment

When CT Programs Meet These Six Conditions, Students Excel!

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Source: 2008 HSTW Assessment

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***Preparation for Tomorrow:
Joining a College-Ready
Academic Core with
Intellectually Demanding
Career/Technical Courses***

Evidence for Potential Impact

Joining a College-Ready Academic Core with Intellectually Demanding CT Studies

Comparison of Two Sets of 20 High Schools with
Similar Demographics

	Low- Graduation/Low- Performing	High- Graduation/High- Performing
Graduation Range	64 to 79%	86 to 99%
College- and Career-Ready		
Reading	44%	79%
Mathematics	53	69
Science	44	69

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Joining a College-Ready Academic Core with Intellectually Demanding CT Courses

Differences in Implementing *HSTW* Key Practices

	Low-Grad/ Low- Performing	High-Grad/ High- Performing
Completed College-Ready Core		
4 years of CP English	42%	78%
4 years of mathematics. (Algebra I and higher)	53	73
Completed Career Concentration		
4 CT credits	53	68
6 CT credits	28	54

Impact of Purposefully Embedding Academics into High-Quality CT Studies

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Indicators	Low-GR/Low-Performing	High-GR/High-Performing
Intensive Embedding of Reading in CT	13%	40%
Intensive Embedding of Mathematics in CT	20	48
Quality CT	21	59
Student Perceived Importance of HS	36	59

Source: 2008 HSTW Assessment

Impact of Schoolwide Emphasis on Reading and Writing for Learning on Readiness for College and Careers

Students...	Low-Grad/Low-Performing	High-Grad/High-Performing
Experiencing Intensive Literacy	14%	45%
Meeting Readiness Goals		
Reading	44	79
Math	53	69

Joining a College-Ready Academic Core with Quality CT Courses and Other Reform Practices

Differences in Implementing *HSTW* Key Practices

	Low-Grad/ Low- Performing	High-Grad/ High- Performing
Students report frequently receiving:		
Guidance/extra-help support	42%	60%
Teachers report:		
Principals frequently focused on continuous improvement	25	49

Source: 2008 *HSTW* Assessment and *HSTW* Teacher Survey

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What Are Possible Policy Options?

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Crafting a New Vision for High School:

*How States Can Join
Academic and Technical Studies
to Promote More Powerful Learning*

HIGH SCHOOLS THAT WORK



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Policy Options

1. Be clear about the mission of high school CT studies. Does it have a dual or single mission?
2. Consider defining in policy, if not currently addressed, what intellectually demanding courses would be. (See p. 23 , Blueprint doc.)

Comparison of KY CT Students with Similar Students at Full- Time Technical High Schools

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Meeting College- and Career- Readiness Standards

	KY High Schools	FT Technical High Schools
Reading	62%	83%
Math	63	78
Science	61	79

Comparison of KY CT Students with Similar Students at Full- Time Technical High Schools

Completing a College-Ready Academic Core

	KY High Schools	FT Technical High Schools
CP English	58%	88%
4 Yrs Math, Alg I and higher	57	68
3 CP Lab Sciences	67	95

Comparison of KY CT Students with Similar Students at Full- Time Technical High Schools

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Completing a College-Ready Academic Core

Students Report...	KY High Schools	FT Technical High Schools
Embedded Reading	36%	46%
Embedded Math	32	40
Quality CT	22	59

Policy Options

- 3. Consider bringing all CTE that serves Kentucky's high school students under one state agency.**
- 4. Make CTE a full partner in high school reform with an equal presence to academic and school improvement staff in redesign of high schools.**

Policy Options

- 5. Consider appointing a special commission to make recommendations for converting some of the state's stand-alone career/technical centers into choice full-time technical high schools serving grades nine to 12.**

Policy Options

- 6. Establish State BOE policy or legislation creating a school improvement design that joins academic and CT studies for high schools that graduate less than 70 percent of students who entered grade nine four years before.**

Policy Options

- 7. Charge state department of education with tracking academic performance of students completing state-approved hybrid courses yielding academic credit to determine if these courses are working.**

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Policy Options

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- 8. Ensure that secondary school principals understand how to lead project-based instruction and integrate academics into CT courses and authentic learning experiences into academic courses.**

Policy Options

- 9. Hold high school CT programs accountable for producing high school graduates who meet academic and technical standards for advanced training, college and the workplace.**

Policy Options

10. Broaden the definition of rigor through:

- **Application-based learning (authentic problems)**
- **Higher-order, problem-solving learning (knowledge in context)**
- **Depth-based learning (deeper, rather than broader, coverage of content)**
- **Blended programs of academic and technical studies**
- **Demonstration-based assessments beyond reading, writing and mathematics**

Policy Options

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- 11. Identify schools with high ninth-grade failure rates and support redesigning ninth grade to include a high-quality CT course with authentic projects aligned with Algebra I and ninth-grade science.**

Policy Options

- 12. Charge the State Department of Education and Community and Technical College System to determine the percentages of CT students earning dual credit and having to enroll in remedial studies in reading, writing and/or math when entering college.**

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Lost in Transition:

*Building a Better Path from
School to College and Careers*

By Gene Bottoms and Marna Young

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Percentage of KY CT Students Enrolled in Dual Credit Courses Meeting Readiness Goals

